

Association between exposure/adherence to a cardiovascular risk management program and the incidence and mortality of cardiovascular events in the Caribbean region of Colombia

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Abstract

Objectives: To establish the association between the exposure to a cardiovascular risk management program ["De Todo Corazon (DTC)" program in Mutual SER-EPS] and the reduction of incidence and mortality by cardiovascular events (CVE: AMI, Stroke, congestive heart failure). **Methods:** Cohort study that compared the occurrence of CVE among patients over 18 years of age exposed and non-exposed to the DTC program (N = 113,277). Enrolled patients in the DTC program between June 2015 and June 2017 were considered as the exposed population and patients enrolled in the DTC program between July 2017 and July 2018 were considered as the unexposed population. Patients who achieved clinical goals (blood pressure, 140/90 mmHg, HbA1c, 7.5% and LDL cholesterol, 100 mg/dl) were considered adherent to the DTC program. Incidence and mortality rates were compared and Incidence rate ratio (IRR) was used to evaluate the effect of the program. A Poisson regression model was used to assess the association between exposure to the program and CVE adjusting by socio-demographic characteristics and clinical goals. **Results:** The incidence of CVE in exposed and unexposed patients was 6.8 and 9.5 per 1.000 persons per year, respectively [IRR of 0.72 (95% CI 0.60-0.87)]. Mortality associated to CVE in exposed and unexposed patients was 0.46 and 0.56 per 1.000 persons per year, respectively [IRR 0.82 (95% CI 0.40-1.95)]. When adjusting the estimation by age, sex and achievement of clinical goals, a lower incidence rate of CVE among patients who were adherent to the program was observed [IRR = 0.62 (CI 95% 0.46 - 0.86)]. **Conclusions:** Exposure to the DTC program significantly decreased the incidence and mortality CVE by 28% and 18%, respectively. Adherence to the DTC program significantly decreased the incidence of CVE by 38%.